## Who Failed that Engine?

## By Lt. Barry L. Ritko

was near the end of my first tour and serving as the squadron NATOPS instructor.
After giving a couple of checkrides, my chance came to win one back for the JOPA.
A senior department head needed an ANI annual checkride, and I was the man to bring him some pain.

The NATOPS check started with numerous simulated emergencies in our MH-53E en route to Felker airfield, where we would do the fam items. The emergency-procedures portion of the flight was completed without incident, and we entered the local bounce pattern on runway 32. The winds were light to calm, and the pattern was all ours.

We completed the normal basic-airwork checks, such as the run-on and no-hover landings, servos off, and other required items. I then checked our operational weight and confirmed we were safe for the practice autorotations.

We received clearance from tower and climbed to 1,000 feet AGL. After several laps around the pattern, we had our fill of practice autos but decided to do one more each before calling it a day. With the checkride complete, I gave the controls to my copilot, and he leveled off at 1,000 feet AGL.

It happened fast. As soon as we leveled off, I felt a little thump in the airframe and saw the No. 2 engine torque drop to zero. I thought to myself, "Hey, I didn't initiate that emergency."

My scan moved to the gas-turbine gauge, and I saw it rising quickly. Immediately, I said, "The No. 2 engine has failed."

Next, the overheat light on the No. 2 engine came on as advertised. This light indicates the engine nearly is on fire, and the temperature at the aft-engine sensor is about 575 F. My copilot transitioned the aircraft to dual-engine flight parameters and descended to land.



I grabbed the speed-control lever on the No. 2 engine, asked my copilot to confirm (which he did) and secured the engine. We continued our descent to land as I called tower and reported a failed engine. I said we required immediate landing and assistance on touchdown. Tower cleared us to land.

Our crew scanned the cabin for secondaries, such as fire or engine debris flying in the cabin. The crew said all looked good. While they continued their scan, I pulled the fire T-handle on the No. 2 engine, which armed the fire bottles for discharge and secured the engine-fuel-selector lever. Once the engine was off, I scanned the gauges to make sure the engine indeed was off and no other problems were present. My copilot rolled on final and set his landing attitude, while I ran up power on the remaining two engines. He executed a smooth-running landing to minimize the required power. It was a nice landing.

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Once we came to a stop, we rescanned the No. 2 engine to make sure everything was secure. The engine showed a normal cooling trend, with no secondaries. I talked with tower and got approval to back-taxi and shut down on the tarmac. The shutdown went without incident, and we took a deep breath, congratulated each other on a safe landing, and checked for damage.

Postflight inspection was frustrating; nothing could be found wrong with the No. 2 engine. The quality-assurance reps went over it with a fine-tooth comb but couldn't find any discrepancies. An FCF crew tested the engine but couldn't locate a problem. The engine was tested and operated as advertised.

I don't know what caused the No. 2 engine to fail. At the time of the emergency, my concern was a possible fire, the safety of my crew, and getting the aircraft on deck. My copilot and I knew we had plenty of power to land the aircraft with the remaining two engines. Having an emergency wasn't on my top-10 list of things to do; however, giving an O-4 a hard time on his NATOPS checkride was.

Our aircrew coordination was excellent within the crew, and we all were on the same page the instant the emergency happened. It was our first engine failure. We won't complain if we don't see another one in our careers.

Lt. Ritko flew with HM-14.